fullfledged TV studio set-up during 1993-94.

[*English*]

Upper Thunga Project

5207. SHRI OSCAR FERNANDES:
SHRI KODAKANI GOWDANA SHIVAPPA:

Will tthe Minister of WATER RESOURCES be pleased to states

(a) whether the Union Government have received the modified Upper Thunga Project report from the GOvernment of Karnataka for techno-economic appraisal;

(b) if so, the details thereof;

(c) the time by which approval is likely to be accorded; and

(d) the estimated amount likely to be spent on the project alongwith the share of the Union Government thereon?

THE MINISTER OF WATER RESOURCES (SHRI VIDYACHARAN SHUKLA) : (a) to (d). The modified Upper Tunga Project Report estimated to cost Rs. 379.87 crores and envisaging annual irrigation of 94,698 hecteres has been received recently in February, 1992. As per the presentt policy, irrigation projects are funded by the State Governments themselves out of their plan resources.

Tapping Non-Conventional Energy

5208. SHRI AMAL DATTA: Will the Minister of POWER AND NON-CONVENTIONAL ENERGY be pleased to state:

(a) the progresss made so far in trapping non-conventional energy;

(b) the expereince with regard to capital cost and running cost per unit of energy; and

(c) the details of programme for extension of non-conventional energy?

THE MINISTER OF STATE IN THE MINISTRY OF POWER AND NON-CONVENTIONAL ENERGY SOURCES (SHRI KALP NATH RAI) : (a) For tapping non-conventional energy sources, a comprehensive programme of reserach, development, demonstration and disemmination of new and renewable energy systems and devices has been taken-up in the country. These programmes are being implemented through various State Governments and implementing agencies, besides autonomous institutions and research organisations. Attached Statement brings out status of progress made in the implementation of various types of non-conventional energy systems and devices.

(b) Many of the new and renewable energy systems and devices are becoming more and more popular and cost effectoive with the asistance and efforts made by the Central and State Governments/Nodal Agencies and Research Organisations. Capital cost of some of the systems apparently appears high when compared with conventional energy systems. However, a critical socio-economic cost analysis including direct and indirect costs together with cost to the society and overall environmental cost, most of the non-conventional energy systems and devices may prove to be cost effective in the long run. Further, in a few cases where the technology is in the process of development, the same may become cost effective in case the availability of some of the conventional energy sources reaches near exhaustion limits over a period of time in the future.

New and renewable energy sources such as, sun, wind and water being free, the running cost towards fuel is generally negligible. However, as many of these systems are installed generally in the open atmosphere, appropriate and adequate maintenance is required to be provided.

(c) The Government is encouraging development, production and wider use of new and renewable energy sources for various types of centralised as well as decentralised applications. Research devel-

opment, demonstration and dissemination activities are being undertaken. Country-wide infrastructure for the manufacture, installation and maintenance of various systems and devices has been developed. For harnessing and use of renewable energy systems and devices,incentives such as subsidy, soft term loans, and fiscal incentives in the form of depreciation allowence and relief in sales tax, excise duty and customs duty are provided to the users and manufacturers. In addition, publicity and awareness campaign are also being undertaken.

STATEMENT

Status of progress made for various types of non-conventional energy systems & devices.

S. No.	Programme	Units	Cumulative Achievement upto 31.12.91
1	2	3	4
1.	National Project on Biogas Development (family size biogas plants)	Nos. in lakh	14.90
2.	Community/Institutional Biogas Plants	Nos.	750
3.	National Programme on Improved Chulhas	Nos. in lakh	113.05
4.	Solar Thermal Energy Systems	Coll. area in sq. mts. (in.000)	190
5.	Solar Cookers	Nos. in '000	201
6.	Villages provided with Photovoltaic Street lights	Nos.	8050
7.	Photovoltaic Water Pumps	Nos.	1181
8.	Photovoltaic Water units	KWP	601.2
9.	Photovoltaic Community lights/ TV and community facilities	Nos.	938
10.	Photovoltaic Domestic lighting units	Nos.	5050
11.	Wind Pumps	Nos.	2756
12.	Wind Farms	MW	39

S. No	Programme	Units	Cumulative Achievement upto 31.12.91
1	2	3	4
13.	Mini-Micro Hydro	MW	79.35
14.	Urjagram Energy Surveys	Nos.	1385
15.	Urjagram Projects	Nos.	153
16	Biomass Energy plantations	Hectares	17165
17.	Biomass Gasifiers	Nos.	760
18.	Biomass Stirling Engines	Nos.	100